

SubD17

B1

~~exposed portions having a second profile and a second contact area that is appreciable different from the first [profile] contact area of the first exposed portion, at least some of the second exposed portions enhanced with a superhard material.~~

2. (amended) The drill bit of Claim 1 wherein the plurality of first exposed portions and the plurality of second exposed portions are generally the same geometric shape with one of the pluralities of first and second exposed [portions] contact areas appreciably larger than the other.

SubD27

~~26 (twice amended) A percussion drill bit for percussion drilling in a formation, comprising:~~

- ~~a) a bit head for percussive impact against the formation;~~
- ~~b) at least a first plurality of first inserts and a second plurality of second inserts extending from the bit head;~~
- ~~c) each of the first inserts having a first base portion [that is not superhard] mounted to the bit head and a first exposed portion extending from the bit head, the first exposed portion having a first contact area and generally having a radius of curvature;~~
- ~~d) each of the second inserts having a second base portion mounted to the bit head and a second exposed portion extending from the bit head, each of the second exposed portions generally having a radius of curvature and having a second contact area that is appreciably larger than the [radius of curvature] first contact area of the first exposed portion, at least some of the second exposed portions enhanced with a superhard material.~~

SubD37

~~50 (twice amended) A percussion drill bit for percussive drilling in a formation, comprising:~~

- ~~(a) a bit head for percussive impact against the formation;~~
- ~~(b) at least a first plurality of first inserts and a second plurality of second inserts extending from the bit head;~~
- ~~(c) each of the first inserts having a first base portion mounted to the bit head and a first exposed portion extending from the bit head, each of the first exposed~~

Sub D3

portions having a first contact area, and each of the first base portions being generally cylindrical with a diameter;

- (d) each of the second inserts having a second base portion mounted to the bit head and a second exposed portion extending from the bit head, each of the second exposed portions having a second contact area that is appreciably larger than the first contact area, and each of the second base portions being generally being generally cylindrical with a diameter that is appreciably larger than the diameter of the first base portion, at least some of the second exposed portions enhanced with a superhard material.

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Please add the following new claims:

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B5

69. The drill bit of Claim 5 wherein:

- (a) at least some of the first and second exposed portions are enhanced with a superhard material having a thickness; and
(b) the ratio of the thickness to the radius of curvature of the second exposed portions is less than the ratio of the thickness to the radius of curvature of the first exposed portions.

70. The drill bit of Claim 1 wherein the bit head defines

a first plurality of first cavities in which the first plurality of first inserts are disposed, said first cavities having a plurality of first base planes, and
a second plurality of second cavities in which the second plurality of second inserts are disposed, said second cavities having a plurality of second base planes, wherein the first base plane of a said first cavity does not intersect the second base plane of an adjacent second cavity.

71. The drill bit of Claim 26 wherein:

- (a) at least some of the first and second exposed portions are enhanced with a superhard material having a thickness; and
- (b) the ratio of the thickness to the radius of curvature of the second exposed portions is less than the ratio of the thickness to the radius of curvature of the first exposed portions.

72. The drill bit of Claim 26 wherein the bit head defines

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a first plurality of first cavities in which the first plurality of first inserts are disposed, said first cavities having a plurality of first base planes, and
a second plurality of second cavities in which the second plurality of second inserts are disposed, said second cavities having a plurality of second base planes,
wherein the first base plane of a said first cavity does not intersect the second base plane of an adjacent second cavity.

73. The drill bit of Claim 50 wherein the bit head defines

a first plurality of first cavities in which the first plurality of first inserts are disposed, said first cavities having a plurality of first base planes, and
a second plurality of second cavities in which the second plurality of second inserts are disposed, said second cavities having a plurality of second base planes,
wherein the first base plane of a said first cavity does not intersect the second base plane of an adjacent second cavity.

Attached to this Response to Office Action is a clean version of the amended claims.